

P.E.T. CASE OF THE MONTH

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Fig. 1 Chest CT



Fig. 2 Coronal PET

This 67 year old woman was found to have a left apical mass on chest CT (Fig. 1). A PET scan was obtained to evaluate for malignancy and for staging.

The PET scan showed intense FDG uptake in the lung mass, highly suggestive of malignancy (Fig. 2, large arrow). Another focus of increased FDG uptake was noted in the left upper quadrant of the abdomen (Fig. 2, small arrow).

The lung mass biopsy revealed an infiltrating squamous cell carcinoma. A colonoscopy was performed and showed several polyps of different sizes in the left side of the colon, which were resected. Pathology showed fragments of **tubulovillous adenoma**.

How did the PET help: The PET identified a pre-cancerous lesion in the colon.

In a recent study, abnormal unexpected foci of hypermetabolism were identified in 53 out of 1750 patients (1). On further investigation, 71% of these were either malignant or premalignant tumors. In another study, unexpected nodular high FDG uptake in the colon, found in 27 patients, implied at least a 79% chance of abnormal histopathologic findings (malignant lesions, hyperplastic polyps, dysplastic adenomas)(2).

(1) Radiology 2004;230:417-422

(2) Radiology 2002;224:783-787